

'We will certainly need the full 2 percent stringency tax this year,' Davenport advises Deans, Chairs and Directors

What follows is President Paul Davenport's statement concerning budgetary planning for 1990-91. The statement was directed to Deans, Chairs, and Directors in conjunction with an information session held 2 February.

At a time when many in our community are deeply involved in budgetary matters, I would like to set out the general context in which

the University Administration is planning next year's budget. Final authority on the budget rests with the Board of Governors, which acts after recommendations from the Planning and Priorities Committee and the Board Finance Committee. We hope to have a budget before the Board in May.

The 1990-91 budget year will be a particularly difficult one. The University has a significant

structural deficit which we will need to remove from our spending. Several years of lean budgets have left little flexibility in most budgets, so that further expenditure restraint entails painful reductions in the quality of academic programs and University services.

Many colleagues have approached me over the last month to indicate the severe impact on their teaching programs of the

expenditure reductions I announced in December, particularly the 2 percent stringency tax (which is devoted to reducing the deficit) and the 0.5 percent BAF tax (the Budget Adjustment Fund is used to reallocate budgets in light of University priorities and special circumstances). I have also received expressions of concern from those representing our nonacademic staff and our students. I have assured all involved that the Vice-Presidents and I are only too aware of the significant negative cumulative effects on the quality of our institution's teaching and research of the budget cuts planned for 1990-91.

I have come to understand, moreover, that it is vital that we in the Administration share with the wider community the budgetary information which we believe shows the cuts to be required. That sharing of information was the purpose of the meetings held on 2 February, with Deans, Chairs, and Directors, and with the executives of AAS:UA, NASA, GSA, and SU. Those present at both meetings made clear to me how damaging the stringency tax will be to our academic programs and to staff morale. At the same time, I believe that many colleagues left the meeting with a better idea of just how difficult the University's financial situation has become.

The presentation of projected budgetary data at this time of year
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FOLIO

University of Alberta

8 February 1990

Stringency tax a necessary evil

The University's operating deficit, and the failure of real provincial funding to keep pace with student numbers over the past decade, are the main reasons for the stringency tax, in President Davenport's view.

"Our fundamental problem," he says, "is the ongoing structural deficit of \$4.5 to \$5 million in the sense that our continuing expenses are greater than our continuing revenues."

He warns that even with the 2 percent stringency tax which would remove about \$5 million from expenditures, "we still face the possibility of a severe deficit in 1990-91 depending on salary settlements." (Negotiations with the two staff associations and the Graduate Students' Association continue. Dr Davenport says indications are there will be increases in the order of 4 percent at the other universities in the province.)

The stringency tax could not come at a worse time, Dr Davenport continues. "Our Faculties and Departments have been subject to restraint over the past several years, and there is simply no fat or unnecessary expenditures left in our system. We're forced in many cases to reduce program sizes or program quality."

Another aspect of the University's financial predicament is the decline in funding per student relative to other major Canadian research universities. Five years ago, our funding per
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Residence system at risk

Students from the University's six residences protest proposed rental increases that range from 6 to 12 percent. Upstairs in University Hall, John Mark Fisher, Students' Union Housing and Transport Commissioner, told the Board of Governors that the ally (2 February) was "a peaceful measure to express our interest and concern." The Board will also give consideration to the placement of a surcharge on all residence rates to help pay for renovation and replacement costs. About 3,250 students, 80 percent of whom are from outside Alberta, live in residence.

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September admissions only, General Faculties Council decides

In 1987 the University of Alberta grappled with the raising of the admission standard from 65 percent to 70 percent. Now the timing of admissions is at issue. Should there be January and spring admissions of new students?

At the 29 January meeting of General Faculties Council the point was made that with the possible setting of quotas in the Faculties of Arts and Science in 1990-91, students may arrive here en masse to circumvent the quotas. These people would be high school students, transfer students and students who qualify for university but who deferred entrance in favor of joining the work force.

Margaret Van de Pitte, Associate Dean of Arts, said the Faculty is "turning away anywhere from 500 to 1,000 students per term."

Brian Silzer, Registrar, told Council that, historically, the decision on whether to admit students in January has rested with individual Faculties. He added that the Deans of Arts and Science have informed him that they have no intention of admitting students in January 1991.

Currently, 5 percent of University of Alberta admissions occur in January and these tend to be students who have taken time out from their studies for various reasons.

The proposal (from the GFC Committee on Admissions and Transfer (CAT)) before Council was to add this stipulation to the Admissions section titled January Admissions: "For 1990-91, the point at which new students are admitted to undergraduate programs at the University of Alberta shall be restricted to September 1990."

"The problem is we just have too many people," said Vice-President (Academic) Peter Meekison. "We're

trying to give almost a full year's notice of our intentions."

The Registrar pointed out that the next University Calendar to be published has already gone to the printer, but that a newsletter prepared by his office and other lines of communication could be used to get the word out.

Students' Union President Dave Tupper said GFC had to make hard decisions but that those decisions must be fair to the people they affect. "It boils down to a question of fairness and practice and in both cases the proposal falls short."

Gordon Fearn (Sociology) cautioned that "when we do last minute things we jeopardize our standing in the community."

The proposal was passed as was CAT's other proposal that for the 1990-91 Winter Session, new students from outside Alberta must present a minimum 6.5 grade point average on five full courses transferable to the University of Alberta.

There was also a lengthy discussion of an amendment by John Bertie (Chemistry) to the effect that support staff members not serve on decanal selection committees.

Dr Bertie maintained that the search for a dean involves academic considerations which support staff aren't likely to be familiar with. He took pains to note that he is most appreciative of the work of the support staff, but he wondered whether the University might be carrying its collegial way of doing things a bit too far.

Vice-President Meekison said, "The thing I find with these committees is that every member brings something to the table."

The amendment was defeated as was Dr Bertie's second amendment which called for either the Vice-President (Research) or the

Dean of Graduate Studies and Research to sit on decanal selection/review committees.

Other matters

After President Paul Davenport made GFC aware of the President's Commission for Equality and Respect on Campus, Dr Meekison invited members to talk to their colleagues and let them know of the commission and its mandate and schedule. "I feel that we're showing leadership in this area in Canada," he commented.

In the question period, a staple of the GFC agenda, the restoration of Corbett Hall was brought up. There will be some occupancy in June 1991 and full occupancy by August 1991. Almost all funding for the project comes from Alberta Advanced Education.

The annual report to GFC on the number and disposition of

discipline cases stated that in 1987-88 the total number of discipline cases handled outside of Faculties was 41. That figure increased by two in the 1988-89 academic year.

Suresh Mustapha, Vice-President Academic of the Students' Union, spoke of the misfortune of a fellow student member of GFC, Rick Patsula. While playing hockey, Patsula fell into the boards and sustained a broken neck. Paralysis of the torso was feared but he is now able to move his arms a little and can use his fingers to a certain extent, Mustapha explained. The Students' Union and the Agricultural Engineering Club have set up a fund to buy a computer to help Patsula, who remains in intensive care, complete his degree program. Anyone wishing to contribute is asked to call one of the two organizations□

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New date for awarding of Kaplan prize

The date for the presentation of the J Gordin Kaplan Award for Excellence in Research has been changed from 14 March to 29 March (8 pm).

And the location is 2-115 Education North, not the Humanities Centre.

The recipients—James MacGregor and Brendan Rule— will each

deliver a lecture of some 20 minutes' duration. Dr MacGregor's talk is titled "Research for a Building Society"; Dr Rule will speak on "Emergence of New Disciplines and Alliances: The Influence of Research and Contemporary Problems".

A reception will follow in the fourth floor lounge, Education North.□

Researchers say they need more money to maintain vibrant university research community

The Royal Society of Canada's University Research Committee has been receiving from researchers one underlying message: We need more money, says the committee's Chair, Peter Larkin.

Fresh from public hearings in Victoria, Vancouver and Calgary, the committee sought University of Alberta researchers' opinions 31 January.

The committee is undertaking a series of studies of research in Canada. The first study is concerned with the broad questions arising from an analysis of the state of university research. To do that, the Society has recently issued a paper as a basis for discussion titled, "A Study of University Research in Canada: The Issues."

"We're anxious to get your views on the broader policy questions," Dr Larkin, a UBC University

Professor, told U of A researchers, adding that the committee intends to hold hearings across the country in early 1990 and plans to complete its deliberations by December.

Bob Crawford, Associate Dean (Science), said there has to be an increased level of support for graduate studies. He said researchers in Canada haven't had the kind of national computing facilities that Americans have. "We're not just falling behind in this area, we are behind."

Tee Guidotti (Occupational Medicine) said that governments and universities have been too quick to seize on interdisciplinary research as a means of strengthening weak departments. He suggested that solid disciplinary foundations must be built first and encouraging interdisciplinary research can best be accomplished

by encouraging individual researchers.

BJ Busch (Libraries) said research libraries are in a crisis. They lack space, materials are deteriorating and collections budgets are simply not keeping pace. She told the committee that SSHRC needs to expand its support for research libraries and NSERC and MRC have to become involved in funding research libraries.

Dick Peter (Zoology) said the key issue in university research is funding. He said funding for the smaller, quality research programs should not suffer at the expense of the "superstar programs." If the recent federal Centres of Excellence idea goes too far, "it might lead to scientific inbreeding and mediocrity." Dr Peter said another key issue is the quality of people being hired at Canadian universities; universities must hire top quality people who will be competitive internationally.

University Professor Norbert Morgenstern (Civil Engineering) said the capability of universities, even at the U of A, to support research is eroding. He pointed to the issue of differentiation as one of vital importance. (The Royal Society's issue paper asks whether some universities should focus more heavily on research while others become primarily undergraduate institutions.)

Dr Morgenstern said it may be time to move some universities away from the pack in order to preserve the university research enterprise. He said this will be achieved by governments. "There aren't any votes to be gained by differentiation." Rather, it could be achieved by bold acts in a few of

the country's leading universities. To create a leading research institution, it must be done by universities themselves by the reallocation of resources within the universities, he explained.

JP Das (Director of the Developmental Disabilities Centre) said the next generation of researchers will depend on the patronage of society. "We must convince the public of the importance of scholarship, because as long as they remain unconvinced, the possibility of producing the next generation of researchers is very slim." He, too, pointed out that the financial inducements for graduate students are too small.

Gordon Rostoker (Physics) said, "We live in a society where intellectual activity is at best ignored and at worst scorned." He said the message is clear that the educational process is degenerating. He said the educational system produces students who are simply not prepared to become practitioners of science. Nor should researchers in universities be asked to perform a multiplicity of tasks. The production of good research, he said, could be accomplished by giving the best people time to do their research.

Baha Abu-Laban (Sociology) said social scientists are almost totally dependent on SSHRC and "that creates a desperate situation for us." He pointed out that governments rarely consider the social dimension of technology. "Unless more resources are made available, the potential of the social sciences won't be realized." □

Tax

Continued from page one

student would have been above average but it's declined markedly and the U of A is now below universities such as UBC and the University of Toronto, Dr Davenport told *Folio*.

"Unless this relative funding deterioration is reversed we will lose our ability to compete with the very best universities in Canada and the United States in terms of recruitment of new staff and maintenance of departments and programs that are internationally recognized."

The President called the 2 February session with Deans, Chairs, and Directors "a vigorous, frank discussion," adding that "they impressed upon me and the Vice-Presidents very forcefully the damage that the stringency tax would do to their academic programs."

"We face the loss of particular graduate and undergraduate programs, a general decline in the quality of our teaching programs, and increasing difficulty for academic staff in finding the time and resources necessary for research."

Dr Davenport says Deans and Chairs are especially frustrated because these declines in quality will make the recruitment of outstanding new staff more difficult, in those rare cases where

funds may be available.

"Our inability to recruit now could be especially damaging to the University's future in light of the continent-wide PhD shortage expected for the mid- and late-1990s which will make the recruitment of academic staff all the more difficult."

Interviewed after the two and a half hour meeting, Patricia Clements, Dean of Arts, said the tax comes at a time when enrollment in recent years has risen way above average "with nothing like a proportionate increase in teaching staff." We will lose graduate programs, including some that have been carefully cultivated over the last several years, and there will be a very large population of undergraduates that will be untaught, she predicted.

"We will not be able to discharge all of the missions that we have," Dean Clements emphasized.

Keith Denford, Chair of the Department of Botany, said afterward that the Board of Governors and Alberta Advanced Education are seeing only part of the picture. Most of the University's cuts have been absorbed in support staff areas with the result that researchers have been forced to provide technical assistance through their research grants. The institution is being run on good will, Dr Denford said. □

Nominations sought for Manning Awards

Nominations are being sought for the 1990 Ernest C Manning Awards.

The program, now in its ninth year, recognizes and encourages Canadian innovators.

The \$100,000 Principal Award and two \$25,000 Awards of Distinction are presented annually to Canadians who have conceived and developed new concepts, procedures, processes or products of benefit to Canada and the world.

Two \$5,000 Innovation Prizes also will be available to recognize unique and innovative ideas of potential benefit to Canada.

Nominees for the awards and prizes must be Canadian citizens resident in Canada. Nominations for the 1990 competitions must be postmarked by 15 February. Pamphlets and nomination forms may be obtained from Research Services, 1-3 University Hall, 492- 5360. □

Spread the blueprints and break out the hard hats

"University Station."

It will be a while before those words are voiced on the LRT's PA system, but the day draws inexorably closer.

At an information session 31 January, Rod Heise, the City's Manager of the LRT Project, and Ken Sorensen, of Stanley Associates Engineering Ltd, spoke of the 8- to 10-month piling job which will begin soon. There won't be the insistent noise that one normally associates with pile driving because the work involves augering or drilling out the piles within a steel casing. The open cut and cover system will be used.

The visitors outlined the four stages in the construction of University Station: 1) piling (concrete pile walls), 2) the underground pedway, 3) more excavation of the station cavity and the placing of floor construction, and 4) construction of the pedway on the upper levels.

It's estimated that 100 to 120 people will be on the work site each day. Where does the soil go? All the way down 112 Street and out to a dump site, Sorensen said.

University Station will contain a mechanical room, an electrical room and a security office.

The Public Works Department is responsible for the overall project, with the provincial government paying 75 percent of the total cost of \$150 million and the city paying the other 25 percent. (The cost of University Station has been pegged at \$19,143,500, excluding utility relocation work and the temporary bus terminal at the Jubilee Auditorium.)

Approximately 20 prime consultants and a like number of major contractors are associated with the project. Lamb McManus Associates Ltd is the prime

consultant; Stanley Associates Engineering Ltd is the managing consultant.

There will be a double track system from Grandin Station south, single track service into University Station, then a return to double tracks as SLRT moves to Southgate. Three-car trains will stop on campus at five-minute intervals, Heise said.

(A word about the SLRT bridge across the North Saskatchewan

River: trains will cross on top of the bridge rather than inside it.)

The length of the line on campus will be 2.5 kilometres.

The existing LRT system is used by about 26,000 people each day; it's expected that there will be about 33,000 passengers per day when University Station is opened.

Asked about a possible stampede of students to get to early morning classes, Sorensen said everything is designed for the orderly movement

of people, and the escalators, stairs and elevators will have "a tremendous capacity."

Construction should be completed by May 1992. The Health Sciences Station is to be built between 1993 and the end of 1995. It will be another 10 to 12 years before SLRT reaches Southgate.□

Public Works Hotline 428-3466

Presidential statement

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is a new departure for the U of A and a practice I intend to continue in future years. I believe that given the severity of our current financial problems, a wide sharing of such information in our community is essential to collegiality and staff morale. We in the Administration will do all that we can to see that our approach to the distribution of such data does not interfere with salary negotiations.

Summary

The University's budgetary situation can be summarized as follows. Our deficit in 1988-89 was \$4.8 million, which was paid from our Unallocated Investment Fund (UIF) account. Our third quarter Budget Variance Report, recently presented to the Board Finance Committee, indicates that the 1989-90 deficit would be about \$4.7 million if current revenue and expenditure commitments are maintained. By mid-February we should have our year-end forecast for the deficit from the Comptroller's Office, which should give us a better idea of the projected deficit for 1989-90. We will seek approval from the Board to fund the final 1989-90 deficit from the UIF. At that point the UIF will probably be dangerously close to exhaustion.

Our projected budget for 1990-91, which includes a 2 percent stringency tax, may well result in a deficit, depending on the costs of the salary settlements. We thus face a serious financial situation during the coming year, which requires that the full 2 percent stringency tax be collected, despite

the very real hardship which it will cause. The BAF does not affect the deficit, since the funds collected by the tax are spent.

Many colleagues have urged me to consider selective cuts in areas in which the damage to our teaching and research effort would be less severe than that of the across-the-board stringency tax. The Vice-Presidents and I are now examining the possibility of selective cuts, in the hope that we can reduce the potential deficit in 1990-91, and at the same time reduce the amount of any stringency taxes that may be required in the future. Our estimates of the potential savings in 1990-91 from selective cuts indicate, however, that we will certainly need the full 2 percent stringency tax this year.

Our financial difficulties occur despite a widespread myth that our operating revenues per student are well above the national norms. Many in our community may recall newspaper articles last fall describing data on the funding of postsecondary education by province prepared by the Ontario Tripartite Committee, which showed operating revenue per student in Alberta to be the highest in the country. The data were for 1986-87, and included all postsecondary institutions, including public and private colleges.

It is vital that those within and outside our community understand that the Tripartite figures are not representative of the current situation of the University of Alberta, when we are compared to other major research universities in Canada. Using Statistics Canada data, our Office of Budget and Statistics has prepared figures

which show that in 1988-89 operating revenue (the government grant plus tuition fees) per student at the University of Alberta was some 1 percent less than that at the University of Toronto, and 6 percent less than at UBC. Preliminary data indicated that these gaps have increased significantly in 1989-90.

The dangers in our current situation are not simply financial. Our nonacademic staff face increasing work loads, which undermine their ability to provide the high quality services and support to which they are committed. Our academic staff encounter similar frustrations in trying to maintain, with declining resources, the quality of programs built up over many years. Our students feel directly the impact of larger class sizes and reduced University services.

Thus budget cuts produce heavier work burdens, which can be destructive of staff morale; moreover, if the burdens are seen as unfairly shared, there can be a gradual undermining of collegiality and our sense of University purpose. We in the administration have a responsibility to show that throughout the difficult process of budget planning with inadequate resources, we have made every effort to minimize the impact of cuts on our academic excellence. All of us in this distinguished institution must work to maintain a sense of community at the University of Alberta, and to renew our commitment to a University-wide vision of excellence in teaching and research, despite the financial constraints which increasingly threaten the superb reputation we have already achieved in so many academic areas.□

'Defining Excellence'

The Women's Issues Committee of the AAS:UA is sponsoring a panel discussion on "Defining Excellence." The panelists are Patricia Demers, Gary Kelly, Juliet McMaster and Mort Ross—all of the Department of English—and the discussion will take place at 4 pm on 14 February in L-3 Humanities Centre.□

Recognize need for social science research, Royal Society told

Royal Society of Canada University Research Committee members were given a brief glimpse of what life is like for several pupils at an elementary school on the edge of Edmonton's inner core.

In his brief on behalf of the Social Science Federation of Canada, Todd Rogers (Educational Psychology) described Bill at age nine who had been in 14 different homes, Lisa who has a chronic hairlice problem, Mary who has to clean up her father's vomit, and Sue and her older sister who are saving their money so they can join their father who lives in another city. You see, Sue's mother recently brought home a man from the bar and woke up the next morning claiming she did not know this man.

"These are real cases, they are not stories," Dr Rogers told committee members, who are holding public hearings across Western Canada as part of their study of issues seen to be important to the future of university research in Canada.

"We live in a society where many, too many, school children come from broken homes, are victims of physical and sexual abuse and lack adequate role models," he said. "The majority of these students hold these things to themselves, often plagued with undeserved feelings of guilt. As a consequence, the teaching/learning process is dysfunctional; many of the students are not ready, nor are they able, to learn. Research is sorely needed to help untangle the web of effects of the unfortunate, but all too common, conditions that inhibit learning," he said.

"Left unhelped these children, as adults, too often will do as was done to them, thereby continuing to add to the increasing social costs encountered at all levels of government."

Dr Rogers said, "There is in Canada today a need to more realistically recognize the need for social science research. Technology alone can not and will not solve the social problems we face."

He said although the federal government recognizes the important role the social sciences play and is continually asking social scientists for advice, support for research in the social sciences is nearly not adequate. Dr Rogers said the lack of support for social science research may have to do with a central question in science:

Do the so-called "soft sciences" like political science, sociology, psychology and education really constitute science at all, and do they deserve to stand beside "hard sciences" like chemistry and physics?

On a third issue, Dr Rogers said social scientists share the federal government's desire to encourage nongovernment support for social science research.

He pointed out, however, that under the federal income tax system, most scientific research carried on or funded by the business sector qualifies for a tax credit equal to 20 to 35 percent of the total amount spent. Social science research is explicitly excluded from qualifying for the purposes of the tax credit, he argued.

"Under the matching grant program, the government provides to certain public authorities grants which match the amount of private sector funding of scientific or social

science and humanities research raised by authorities. Unfortunately, the eligibility rules of the matching grant program are such that the major consumers of social science research (hospitals, etc) are prohibited from participating in the program."

The matching grant program in the social sciences/humanities has been successful in meeting budget targets, but as an incentive to encourage private sector support of social science research it has failed.

Dr Rogers said the low level of business funding of social science and humanities research, in contrast to the larger level and higher percentage of support for NSERC research by business, is not surprising. "Research in the applied natural sciences may yield patentable innovations, enabling many of the benefits of the innovation to accrue to the innovators and the financial supporters."

He added that natural sciences

research related to taxpayers' business qualifies for an existing tax credit for scientific research, but social science research rarely results in patentable innovations and such research is specifically excluded from qualifying for the tax credit provided for scientific research.

Citing the SSFC's 1989 brief, "Encouraging Business Support for Research in the Social Sciences and Humanities", Dr Rogers said the government should provide an explicit deduction for current and capital expenditures for social science and humanities research and a credit for expenditures on qualifying social science and humanities research.

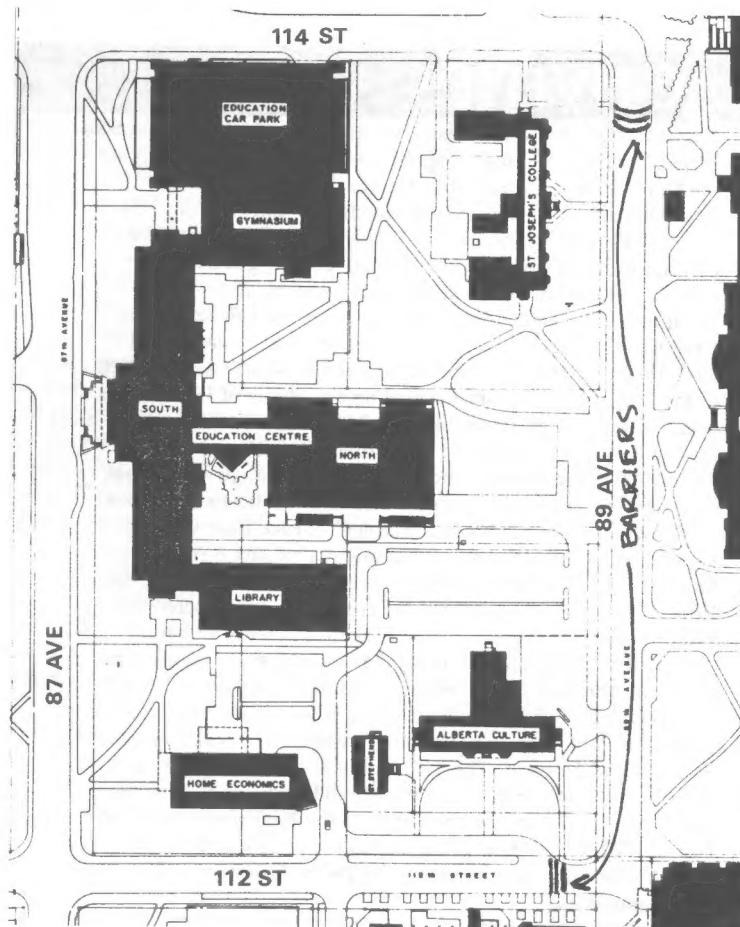
These changes, along with the recent SSHRC introduction of the Joint Initiatives Program and the inclusion of the matching grants into the base budgets of SSHRC, constitute "one step on the path toward achieving a realistic investment in social science research in Canada." □

SLRT construction update

The City of Edmonton recently announced the awarding of the University LRT Station construction contract. In addition to utilities construction currently under way, the station construction should begin by mid-February or early March.

In preparation for major construction activities related to the station, and to remove existing traffic hazards on 89 Avenue, the roadway has been closed as of Monday, 5 February. All emergency and service vehicle traffic will be allowed controlled access, but general vehicle traffic will be strictly limited. Barriers will be located at both ends of 89 Avenue. On 112 Street, a barrier has been erected south of the intersection with 89 Avenue, to allow access to parking zones A and Z. At the west end of 89 Avenue, a barrier will be situated just around the curve from 114 Street making use of a wide section of the roadway to permit vehicle turnaround and limited passenger drop-off in the area.

The University community is advised to observe pedestrian and vehicle signs encouraging safe traffic movements in the vicinity of construction activities. □



Heavily industrialized Ukraine facing ecological crisis

In the Western Ukraine city of Chernivtsi, in August 1988, children of fair complexion began to go bald and suffer from a nervous illness.

The Deputy Minister of Health of the USSR established a commission and members concluded that the cause could be attributed to thallium, contained in additives to gasoline tanks. The children were removed from the city, trucks were banned from the city, the city was repeatedly hosed down and parks were resodded.

"Chernivtsi, however, has a long and bitter sequel," David Marples explained 29 January, in his seminar for the Slavic and East European Studies lecture series.

Angry residents rallied and questioned the validity of the thallium theory. By the spring of 1989, the number of cases had climbed to 300 and as of last month, 400 cases were reported among children and numerous others among the adult population in the city and in other areas of Ukraine and Moldavia.

An abortive investigation by the World Health Organization was launched, and *Moscow News* published an angry article in which

it disputed health authorities' claims that the industrial illness was unique, citing similar cases across the Soviet Union.

In Zaporizhzhya, which after Mariupol appears to be the most contaminated city in Ukraine, an underground film was produced last year titled "Hostages," about the horrifying birth defects among newborns induced by the subjection of the fetus to heavily polluted air. Meanwhile, at the Prydniprova Research Centre with the Ukrainian Academy of Sciences, scientists conducted a study of breast milk of new mothers and concluded that in some 80 percent of cases the milk contained dangerous chemicals that had adversely affected the babies, Dr Marples revealed in his talk titled "Is There an Ecological Crisis in Ukraine?"

He noted that although Ukraine constitutes less than three percent of Soviet territory, it accounts for 25 percent of the Soviet GNP, 50 percent of the country's iron ore, 40 percent of the steel output, 24 percent of coal production and 40 percent of important chemicals production. Added to this is the fact that Ukraine has been the site of the

Soviet Union's most ambitious energy program, based on nuclear power, in Soviet history. This has had ecological consequences, Dr Marples outlined. The Petrovsky metallurgical works in Dnepropetrovsk, founded in the last century, now stand in the middle of a residential area, discharging dangerous amounts of toxic substances into the atmosphere over a radius of four kilometres. According to Dr Marples, three residential complexes have been exposed to carbon and nitrous oxides and to sulfurous anhydrides well above acceptable norms.

"Nearby in Voroshilovhrad province, in the city of Komunarsk, which has a population of 120,000, snow is said to be black by the time it reaches the ground as a result of poisonous gases emitted by a metallurgical combine and a chemical plant." In Kiev, highly toxic industrial waste has been dumped illegally on vacant plots of land, and a burial site decreed in 1984 has not been constructed.

In Dniprodzerzhinsk and other cities, Dr Marples argued, the key problems lie with the metallurgical and chemical enterprises that release more and more phenol, hydrogen sulfide and ammonia into the atmosphere.

Dr Marples also outlined the continuing consequences of the Chernobyl nuclear power plant catastrophe, the activities of the Green World movement, the continuing degradation of the Ukrainian water supply and other health-related concerns.

On 1 January 1991, economic sovereignty will be introduced into Ukraine . . . which should permit Ukrainians a decisive voice in where new industries are located. "At the same time, my view is that this ecological crisis not only exists, but will also persist as long as Ukraine lacks the technological base to develop new, ecologically cleaner types of industry," he said. "It is both logical and easy therefore to find scapegoats for the current predicament—outsiders, Leonid Brezhnev, Moscow ministries like Coal, Steel, Land Improvement, Power and Electrification, the designers who built Chernobyl—but it is more difficult to simply halt the process of destruction without bringing the already faltering economy to a standstill." □

Folio

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Half-tones (100-line screen or less) are acceptable; no color or bleeds; Camera ready copy is necessary; there is a charge of 35c per word for typesetting, and \$7.50 for adjustment of design work.

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Deadline for submission is 3 p.m. one week in advance of desired publication date. Acceptance of advertisements and positioning are at the discretion of the Editor. For more information, telephone (403) 492-2325 and ask about *Folio* display advertising, or write to:
Folio Display Advertising
Office of Public Affairs
423 Athabasca Hall
University of Alberta
Edmonton, Alberta T6G 2E8

ACTIVITIES

Hendrik Niemann, a neuropsychologist at the Epilepsie-Zentrum Bethel, Bielefeld, Germany, spent a week (18 to 26 January) at the Developmental Disabilities Centre discussing the establishment of collaborative research between DDC and the Epilepsy Centre, where he is working . . . **JP Das** (Educational Psychology/Developmental Disabilities Centre) gave two colloquia at the University of Saskatchewan on 25 and 26 January. The colloquia, sponsored by several departments, were titled "A new model of intelligence" and "Measures of attention" . . . The appointment of **Glenda Simms** as President of the Canadian Advisory Council on the Status of Women has been announced by Prime Minister Mulroney. Dr Simms is a graduate of this University's Department of Educational Psychology. Her master's thesis (1976) was "Language Change Amongst Jamaican Immigrants". Her doctoral thesis (1985) was "Political Messianism: Michael Manley". **Bruce Bain** was the supervisor of both theses . . . **Raymond Lemieux** (Professor Emeritus of Chemistry) has been chosen as a co-winner of the King Faisal International Prize in Science. He will receive the award at an official ceremony at Riyadh . . . **Einer Boberg** (Speech Pathology and Audiology) is spending the spring term (February through June 1990) as a Visiting Professor at Kuwait University. Dr Boberg has been asked to establish a Department of Speech Pathology and Audiology within the Faculty of Health Sciences and Nursing. This will be the first university-level speech pathology program in the Middle East . . . "Prospectus and Poster", an entry by the Office of the Registrar in the CASE District VIII Recognition Awards Program, has earned a Bronze Award. The entry was produced by **Becky Purves** and designed by **Raymond Au**.

U of A fares well in Canada Scholarships Program

The Canada Scholarships Program is one of the largest matriculation programs on campus, with 241 students being in receipt of the award.

The \$80 million program was announced in January 1988 by Prime Minister Mulroney, the initiative being in direct response to a recommendation by the National Advisory Board on Science and Technology. The recommendation was in a report which highlighted two concerns related to undergraduate enrollment in science and technology:

- the proportion of students in these fields remain static in Canadian universities at a time when the country must compete with nations that focus their development strategies on progress in science and technology; and
- female students are still significantly underrepresented in natural science and engineering programs in Canada.

Under the terms of the Canada Scholarships Program, 2,500 new scholarships are to be awarded annually to outstanding students entering undergraduate studies in science, engineering and related disciplines. Applicants must be Canadian citizens or permanent residents and plan to register as full-time students in a first-year program.

A minimum of 50 percent of the 2,500 scholarships is to be awarded to women.

Another condition of the program is that at least 10 Canada Scholarships are to be assured for residents of each province and territory and for tenure in each province.

The awards are renewable, at \$2,000 annually for up to three years of undergraduate studies contingent on the attainment of first-class standing, or its equivalent, and the continuation of enrollment in an eligible discipline. It's possible, then, for students to receive a total of \$8,000 from the program in support of their education.

Scholarships are allocated to institutions based upon the number of graduates for each institution in eligible disciplines.

There were more than 11,000 applications to the 1988-89 Canada Scholarships Program; of the 111 scholarships awarded to University of Alberta

students, 73 carried renewals for the 1989-90 academic year.

In year two of the program, 3,400 scholarships have been awarded across Canada. The U of A currently administers 168 of these new scholarships. Five of these were awarded to students from the NWT, four of whom are attending the U of A.

The following U of A students hold Canada Scholarships awarded in 1989:

Cynthia Aalders, Derek Adam, Riaz Ahmed, Leah Anaka, Danny Anderson, Lisa Anderson, Tara Ball, Evan Bensler, Cindy Berg, John Bilo, Brian Bilodeau, Audrey Boda, Bill Boyd, Tara Brandt, Bradley Braun, Heidi Brouwer, Melanie Brown, Alfred Buenaventura, Andrew Buhr, Anees Chagpar, Michael Chan, Eddie Chang, Kai-Wai Chao, Betty Chen, Mary Chisholm, Allison Christie, Andrea Coli, Ronald Cook, Diane Crandall, Christopher Crawford, Karin Cruikshank, Sandi Culo, Vittorio DeBenedetto, Martie Dick, Catherine Dickson, Thanh Diep, Sheryl Doke, Brent Duckering, Shelley Duggan, Trevor Dzwiniel, Robert Easton, Melissa Ekkelenkamp, Andrew Enache, Kent Ertman, Jennifer Field, Glen Fraser, Douglas Fugger, Angela Fung, Kelly Gedak, Wilfred Goh, Danielle Goudreau, Ronda Grey, Bonnie Guldbrand, Heather Gutfriend, Salima Hajee, Corey Hambleton, Christopher Harrison, Michael Heise, Trevor Hilderman, Michelle Hook, Lynne Houle, Nancy Irwin, Michael Jackson, Jonathan Janke, Eric Janzen, Chao Jeang, Erin Jeffery, Laurel Junk, Bhavandeep Kang, Grant Kanik, Corinna Kashuba, Samir Kayande, Lii-Ling Khoo, Jun-Nyun Kim, Brett Kimak, Alison Knight, Bradley Koberstein, Robbin Kulicki, Amin Lalani, Tony Lau, Daniel Lee, Suk-Kun Lee, Ray Lehtiniemi, Krista Leicht, Christopher Leonard, Grace Liu, Simonne Longerich, Daniel Lowe, Christine Luelo, Glenn Lutz, Robin MacGregor, Cary Maday, Dennis Manchak, Jonas Marshall, Marina McGale, Heather McAllister, Allan McDonald, Bradley McInenly, Mark McNally, Kim McNichol, Donald Meckelborg, Seema Mahta, Monique Meunier, David Mikulin, Michelle Mills, Nadine Mitchell, Mitchell Miyagawa, Shanu Modi, Lisa Mohanty, Peng Mok, Rebecca

Morcos, Kristy Mussieux, Elizabeth Nash, Andrea Neneth, Bao Nguyen, Phong Nguyen-Ho, Michael Olson, Nadine Ostler, Ronald Oswald, Catherine Otto, Craig Penner, Roland Penner, Timothy Philip, Aimee Phillpot, Danielle Piche, Gregory Pohlka, Thomas Prokop, Fakhara Rana, Ronald Redhead, Hugh Roth, Jennifer Ryan, Paul Sabharwal, Fatehia Saleh, Angela Sarikas, Leigh Sauer, Karen Schultz, Daniel Schwartz, Cindy Shaughnessy,

Winnie Sia, John-Paul Sicotte, Michael Sikora, Santwana Sinha, Michelle Speer, Kathleen Sprysak, Marie-Claude St-Cyr, Thanuja Stanley, Arif Syed, Lesley Tanton, Tracy Taylor, Glen Thoman, Cheryl Thomas, Gail Thornton, Eve Tsai, Wislaw Tutak, Christine Vogel, Kenneth Von Kuster, Karl Voss, Tamara Walker, Richard Wan, David White, Belinda Whitford, Sheldon Wiens, Troy Wilcox, Sam Wong, Victor Yung, Dennis Zadery, and Kevin Zbuk. □

Health Services' peer educators program one year old

University Health Services' Peer Education Program is one year old and indications are that the program is an unqualified success.

The program, designed to provide information on health issues of particular relevance to the student population, has focused on AIDS, birth control, sexually transmitted diseases and alcohol misuse.

Health Education Coordinator Sherrill Berg says the peer educators, who are students themselves, have emphasized the point that students have a whole range of choices on the issues. Moreover, they have not advocated any particular lifestyle, but have instead concentrated on providing the information students need to make responsible decisions.

Christine Kurina, a third-year physical education student who is one of about 30 student peer educators, says the big advantage of the program is that students don't perceive the peer educators as at all threatening. "We are just like you and we worry about these things too, and we're not telling you what to do."

The peer educators use a variety of methods. They guest lecture in a number of different courses, show videos, utilize educational theatre, are involved with a research project with the Psychology 260 course and speak to groups as large as 220 students as well as to more informal and smaller groups. And if they don't have the answers, they'll act as resource people, pointing students in the right direction where their questions can

be answered.

"One of our intentions is to make people comfortable with the topics," says peer educator and nursing student Sonya Jakubec. "The topics are too important not to be discussed."

As well as providing invaluable information about alcohol use and sexually transmitted diseases, among others, the peer educators also learn from their experiences. They experience a great deal of personal growth and are exposed to a number of different teaching methods.

Peer educators have found a fairly high level of knowledge among their fellow students on the issues, but they have also encountered an attitude held by students, who believe they are invincible and that they will remain untouched by AIDS, sexually transmitted diseases, unwanted pregnancies or alcohol abuse.

The program will never remain static and "we'll adjust the topics according to the students' needs," says Berg. Meanwhile, the unique program, which has established a community-wide rapport, has attracted a lot of interest across the country.

The program is kept afloat financially with help from the Students' Union, which pays peer educators' salaries. Soft funding comes from the President's Office, the Dean of Student Services, University Health Services, private and corporate donations and a one-time provincial government grant. □

Governors acknowledge debt of gratitude to those who have devoted their careers to the University

Official recognition by the University (read: members of the Board of Governors) of members of the "Long Service Club" took place on 25 January.

President Paul Davenport told the gathering that he had noticed, even before assuming the Presidency, that there were two special characteristics associated with the University of Alberta. These are: 1) the feeling that this is a community in which jobs represent more than a source of income, and 2) that the U of A is a fine institution, one that has many supporters and a distinguished record that's enhanced continually by the efforts of its faculty and support staff.

The President and the Chancellor, Tevie Miller, congratulated each member of staff and presented plaques (25 years' service), engraved pens (30 years' service), bronze medallions (35 years' service) and engraved silver trays and goblets (40 years' service).

The annual function in honor of long service is organized and sponsored by the Board Educational Affairs Committee (Chair: Bill Milnthorpe).

25 years of service

Masood Ahmad, *Library/PS-Science*
Valentine Albrecht, *Physical Plant - Operating*
Eugene Ambrosie, *Provincial Lab of Public Health*
Julian Augustyn, *Building Services*
Allan Ballah, *Romance Languages*
David Beatty, *Zoology*
Helen Biltek, *Physics*
Richard Bosley, *Philosophy*
Barbara Bristow, *Faculty of Law*
Ronald Cavell, *Chemistry*
Arturo De Leon, *Planning and Development*
William Diachuk, *Technical Services*
Sten Drugge, *Economics*
James Easton, *Computing Science*
Margaret Ellis, *Physical Education and Sport Studies*
Colin Englefield, *Electrical Engineering*
Peggy-Anne Field, *Nursing*

Benita Fifield, *Occupational Therapy*
D Grant Fisher, *Chemical Engineering*
Marie-Jeanne French, *Student Programs - Faculty of Arts*
Robert Gilsdorf, *Political Science*
Tonia Gomes, *Library/TS-Cataloguing*
Ludwig Hirsch*, *Physical Plant - Operating*
Anita Holden-Verburg, *Romance Languages*
John Jodoin, *Physical Plant - Operating*
Alfred Kalantar, *Chemistry*
AN Kamal, *Physics*
John Mayes, *Building Services*
John Moon, *Mathematics*
Bernard Munawich, *Electrical Engineering*
Mangesh Murdeshwar, *Mathematics*
Thomas Nelson, *Psychology*
William Olsen, *Physics*
Eugene Olson, *University Library*
William Quick, *Bookstore*
Eugene Ratsoy, *Educational Administration*
Ruth Reid, *Provincial Lab of Public Health*
Rhoderic Reiffenstein, *Pharmacology*
Paul Robberecht, *Comparative Literature*
George Rothrock, *History*
William Rozeboom, *Psychology*
James Shaw, *Faculty of Extension*
Sol Sigurdson, *Secondary Education*
George Sitwell, *Geography*
Hedy Tebelmann, *Microbiology*
H Duane Tichenor, *Adult, Career and Technology Education*
Alvin Todd, *Surgical Medical Research*
Ronald Van den Heuvel, *Chemical Engineering*
Elizabeth Vincze, *Technical Services*
Geoffrey Voss, *Electrical Engineering*
Robert Ware, *Elementary Education*
Charles Williams, *Organizational Analysis*
Helen Wozniuk, *Mechanical Engineering*
Harvey Zingle, *Educational Psychology*

30 years of service

Jaap Jelle Bakker, *Civil Engineering*
Verna Clarke, *Plant Science*
Donald Collinson, *Restorative Dentistry*
George Cumming, *Physics*
W Kenneth Dawson, *Physics*
Lars Holm, *Physics*
John Holmes, *Zoology*
Gerald Lorenz, *Physical Plant - Operating*
John McGregor, *Statistics and Applied Probability*

Art McKinnon, *Microbiology*
Steve Pawluk, *Soil Science*
Thomas Powrie, *Economics*
Peter Smith, *Geography*
Brian Sproule, *Medicine*
Robert Swindlehurst, *Chemistry*
Istvan Ujvarosy, *Food Science*
Isao Yamamoto, *Applied Sciences in Medicine*

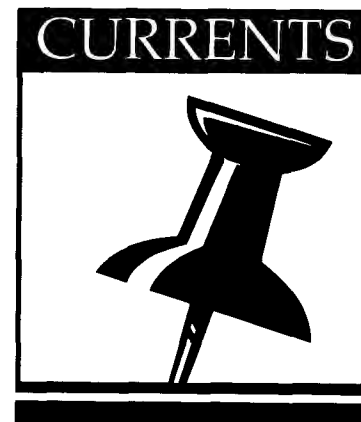
35 years of service

George Ball, *Entomology*
John Kuspira, *Genetics*
Avron Levine, *Chemistry*

40 years of service

John Francis, *Animal Science*
Anne Tory, *Registrar's Office*

* (deceased)



Introduction to online searching in the Health Sciences

What: Do-it-yourself searching of MEDLINE, CINAHL, Health Planning and Administration and other key health sciences databases.

In the lecture both the theory and mechanics of formulating and executing a search of computerized indexes and abstracts will be discussed. The lab session puts these skills into practice on databases and topics of your choice.

Who: Graduate students, residents, faculty members, or other staff who are directly involved in teaching or research.

When and where: Lecture: Wednesday, 21 February, 9 to 11:30 am, Conference Room, JW Scott Library. Labs: Thursday, 22 February, 6 to 7 pm or 7:15 to 8:15 pm. Wednesday, 21 February, 6 to 7 pm (if necessary).

To register: Contact the JW Scott Library reference desk at 492-7947 to sign up for the lecture. Sign-up for the lab at the lecture. There is no charge for the lecture or for first time lab attendees.

'Jewish-Christian Dialogue'

David Goa, curator of the Provincial Museum and lecturer in the Department of Religious Studies, is the speaker for "Jewish-Christian Dialogue", 28 February, 3:30 pm, Faculty Lounge of St Joseph's College. Topic: "The Sanctification of Time."

THE SENATE OF ST. STEPHEN'S COLLEGE invites

HONORARY DEGREE NOMINATIONS

St. Stephen's College is accepting nominations for recipients of the degree of Doctor of Divinity *honoris causa* to be conferred at the fall convocation, 1990.

The Degree Recognizes and Honours Individuals

- Who have demonstrated outstanding commitment to the church's ministries
- Who have given meritorious service which contributes to the spiritual and social well-being of the community
- Who provide leadership in denominational and ecumenical circles

Please request nomination forms from the college by calling or writing to:



Dolores Bell St. Stephen's College
University of Alberta 8810 - 112 Street
Edmonton, Alberta T6G 2J6

Deadline for nominations is March 15, 1990

Chinese market for longer term players, Chen asserts

There is great long-term potential for investing in the Chinese economy, but many foreign investors are now taking a "wait and see" attitude, says Tung-pi Chen, a Queen's University law professor.

The Faculty of Law's Eldon D Foote Professor in International Business/Law said 30 January that despite the Tiananmen Square massacre most Hong Kong business people have maintained their enterprises in the country.

In his seminar headed "Canada-China Trade and Investment Relations," Professor Chen said the crackdown and period of retrenchment has had less impact in the southern areas of the country where "the skies are high and the emperor's far away."

Professor Chen outlined a number of trade irritants between China and Canada. "Anti-dumping measures against China didn't occur until 1982 and prior to that the values were so small it didn't really matter." Since then eight cases have been decided against China.

In those cases it was alleged that China's domestic price was artificial, so a third surrogate country's product was used as a means of determining market value. "But how do you determine market value in a non-market economy?" he asked. In the most recent ladies' footwear case, the Taiwan domestic price for similar products was used. This use of surrogates is "grossly unfair and not workable" and constitutes a big threat to China's importers and exporters, he said.

Another irritant is the continuing trade imbalance between the two countries. "The balance is very much in our favor, but any further growth has to be more balanced," Professor Chen said, adding that if the trade imbalance continues there will be pressure to right that imbalance. Traditionally, Canadian exports to China have been dominated by grain, although there have been increases in the export of high technology equipment, he said, noting Northern Telecom's sales of telecommunications

equipment to the Asian nation.

He said that while China has a formal and legal framework for resolving disputes, traditionally if disputes reach the arbitration

process, it is considered an "unfriendly act." They abhor adjudication and the adversarial approach, so although Western business people may actually win, it is usually a "hollow victory" and could well mean the end of the business relationship, Professor Chen explained. Time and an increased exposure to international business may change that attitude, he said. □

EVENTS



Talks

Limnology and Fisheries Discussion Group

8 February, 12:30 pm Lars Rudstam, University of Wisconsin, "The Rise and Fall of a Dominant Planktivore: Implications for a Biomanipulation Experiment in Lake Mendota, Wisconsin." M-149 Biological Sciences Centre.
15 February, 12:30 pm Peter Leavitt, University of Wisconsin, "Herbivore and Nutrient Regulation of Algal Blooms in a Eutrophic Lake." M-149 Biological Sciences Centre.

Chemical Engineering

8 February, 3 pm MO Jejelowo, "Catalysts for Olefin Polymerization." E342 Chemical-Mineral Engineering Building.

Genetics

8 February, 4 pm Gordon Tener, University of British Columbia, "The Molecular Biology of Aging: The Role of Superoxide Dismutase in *Drosophila*." G-217 Biological Sciences Centre.
13 February, 4 pm Erhard Geissler, Berlin-Buch DDR, "How to prevent a Biological Arms Race." CW-410 Biological Sciences Centre.

Entomology

8 February, 4 pm Martin Erlandson, Agriculture Canada Research Station, "Pathogenesis of an Entomopoxvirus Isolate in the Migratory Grasshopper, *Melanoplus sanguinipes*." TBW-1 Tory Building. Refreshments: 3:30 pm.
15 February, 4 pm David B Levin, York University, "New Approaches to Insect

Pest Control by Use of Recombinant DNA Techniques." TBW-1 Tory Building. Refreshments at 3:30 pm.

Botany

8 February, 4 pm Agneagraves Vanende, "Analysis of Gene Flow in *Populus* Species Using Flavonoids and Isoenzyme Markers." M-149 Biological Sciences Centre.
15 February, 4 pm Peter Leavitt, University of Wisconsin, "Lake Variability and Food Web Interactions: Evidence from Fossil Pigments and Zooplankton." M-149 Biological Sciences Centre.

Arts

8 February, 3:30 pm Helga Vierich, "Shamanism, Cosmology and Social Change among the Kua of the Kalahari." 14-6 Tory Building.
9 February, noon Peter Schouls, "An Approach to Teaching: A Personal View." Heritage Lounge, Athabasca Hall.

Art and Design

8 February, 5 pm Terrence Johnston, Emily Carr College, Vancouver, will talk about his paintings. 2-20 Fine Arts Building.
9 February, 2 pm Eric Cameron, University of Calgary, "Given" About Marcel Duchamps in Relation to His Own "Thick Paintings." 2-20 Fine Arts Building.
12 February, 5 pm Jeffrey Spalding, University of Lethbridge, will talk about his paintings. 2-20 Fine Arts Building.

Plant Science

9 February, 12:30 pm M Schellenberg, "The Potential Role of Perennial Forages in Sustainable Agriculture." 1-06 Agriculture-Forestry Centre.
16 February, 12:30 pm G Dunn, "Reclaiming Salt-Affected Soils." 1-06 Agriculture-Forestry Centre.

Economics

9 February, 3 pm Torben Anderson, Red Deer College, "Customer Discrimination in Major League Baseball." 8-22 Tory Building.
16 February, 3 pm Chris Nicol, University of Regina, "Non-parametric Estimation of Income Densities and Elasticities." 8-22 Tory Building.

Zoology

9 February, 3:30 pm Henry Howe, Department of Biological Sciences, University of Illinois, "Ecology of a Tropical Seed Dispersal Mutualism." M-149 Biological Sciences Centre.
16 February, 3:30 pm Peter Cherbas, Department of Biology, Indiana University, "Steroid Hormones in Development: The Developmental Biology of an Ecdysone-Responsible Gene." M-149 Biological Sciences Centre.

Comparative Literature

9 February, 4 pm George Lang, "Literary Sources for the Lingua Franca." L-2 Humanities Centre.
16 February, 4 pm Mila Bongco, "Folklore in Philippine Comic Books." L-2 Humanities Centre.

Geography

9 February, 3 pm John England, "New Perspectives on the Evolution of the

Canadian High Arctic Landscape." 3-36 Tory Building.

15 February, 4 pm Roger Hayter, Simon Fraser University, "Technology Policy and the Canadian Forest Product Industry." 3-36 Tory Building.

Slavic and East European Studies

9 February, 8 pm Ronald Grigor Suny, University of Michigan, "Empire and Democracy: Gorbachev and the Crisis in the Caucasus." TBW-01 Tory Building.
12 February, 3 pm Elena Siemens, "On the Making of the Epistolary Self-Portrait." 436 Arts Building.
26 February, 3 pm Tova Yedlin, "Rethinking Soviet History: The Soviet Historian in the Era of 'Glasnost'." 436 Arts Building.

History

9 February, 3:05 pm Ronald Grigor Suny, University of Michigan, "The Russian Revolutions of 1917: Visions and Revisions." T2-58 Tory Building.
10 February, 9:30 am to 4:30 pm Professor Suny, "On Studying Revolutions: Gestation, Practice and Legacy" and "Class and Nationality in the Russian Revolution: A Re-examination of Categories." VIP Room, Lister Hall. Lunch provided.

Boreal Institute for Northern Studies

12 February, noon, Jon Swenson, "Behavior of Hazel Grouse in Sweden." G-113 Biological Sciences Centre. Sponsored by Zoology.

Pharmacology

12 February, 4 pm Frank Witkowski, "Mechanism of Cardiac Fibrillation." 207 Heritage Medical Research Centre.

Committee for Legal Education Reform

13 February, 7:30 pm David Kilgour, MP, Edmonton Southeast, is the speaker for the Utopian Legal Education Lecture Series. 237 Law Centre.

Women's Studies Program

14 February, 11 am Anne McGrath, Alberta representative, NAC, "Grassroots Organizing." 254 Education South.
26 February, 3:30 pm Susan McDaniel, "Women in Canada's Aging Society." Senate Chamber, Arts Building.

Library and Information Studies

14 February, noon Gail De Vos, storyteller, "Story Telling for Young Adults: A Source Book." 3-01 Rutherford South.

Techniques in Cell and Molecular Biology

14 February, noon Teresa Krukoff, "Enzyme Histochemistry." 6-28 Medical Sciences Building. Presented by Anatomy and Cell Biology.

Agricultural Engineering

15 February, 3:30 pm Peter Clark, "Optimizing Ventilation in Broiler Housing Using Knowledge Based Programming." 1-3 Agriculture-Forestry Centre.

Canadian Institute of Ukrainian Studies

20 February, 7:30 pm Speaker to be announced. "Ukrainians in Brazil." Auditorium, St Basil's Cultural Centre, 10819 71 Avenue. Cosponsored by St Basil's Ukrainian Catholic Parish and Bishop Budka Society.

Law

24 February, 9:30 am Saturday Morning at the Law School—"Landlord and Tenant." Law Centre.

Economics and Finance and Management Science

2 March, 3:30 pm Cheng Hsiao, University of Southern California, "Statistical Analysis of Mixed Fixed and Random Coefficient Models for Pooling Cross-Section and Time Series Data." 4-16 Business Building.

The Arts

Music

8 February, 3:30 pm Richard Troeger, "Texture and Style in Classic Keyboard Music." 2-32 Fine Arts Building.
11 February, 8 pm Faculty Recital—Helmut Brauss, pianist.
14 February, 8 pm Faculty Recital—Donald Bell, bass-baritone, and Alexandra Munn, pianist.
15 February, 8 pm Visiting Artist Recital—Paul Bro, saxophonist, Depaul and Northwestern Universities, and Albert Potts, pianist. Cosponsored by Chicago Artists Abroad.
All events in Convocation Hall.

Studio Theatre

Until 17 February "Six Characters in Search of an Author" by Luigi Pirandello. Director: Carl Hare. Box office: 492-2495.

Exhibitions

**Bruce Peel
Special Collections
Library**

Until further notice "Gifts of Celebration: Rare Books presented by the University Senate and the Friends of the University 1981-1989." B7 Rutherford South. Hours: Monday, 8:30 am-4:30 pm; Tuesday, Wednesday, Thursday, 8:30 am-6 pm; Friday, 8:30 am-4:30 pm; Saturday, noon-5 pm; Sunday: closed.

McMullen Gallery

Until 30 March "A Family Show", in recognition of Alberta's first Family Day, 19 February. Works by a well-known family of artists: Dorothy Knowles, William Perehudoff, Catherine Perehudoff, Rebecca Perehudoff and Carol Perehudoff, courtesy of the Edmonton Art Gallery, Woltjen-Udell Gallery, Front Gallery and private collectors. Public reception, 16 February, 7:30 pm, Bernard Snell Hall, Walter Mackenzie Health Sciences Centre.

Films

Germanic Languages

13 February, 7:30 pm "Die

Grünsteinvariante" (1984). 141 Arts Building.
27 February, 7:30 pm "Die Abfahrer" (1978). 141 Arts Building.

Romance Languages

15 February, 3 pm Anthony Wall, University of Calgary, "Neige noire comme texte masqué." Senate Chamber, Arts Building.

Edmonton Youth Orchestra

18 February, 3 pm Orchestra 2 will provide an afternoon of music. Convocation Hall. 436-7932.

Sports

Basketball

9 and 10 February, 6:30 pm Pandas vs British Columbia.
9 and 10 February, 8:15 pm Golden Bears vs British Columbia.

Gymnastics

16 and 17 February CWUAA Championships.

Hockey

16 February, 7 pm Golden Bears vs Manitoba.
17 February, 1:30 pm Golden Bears vs Manitoba.

Volleyball

17 February, 8 pm Pandas vs Lethbridge.
18 February, 1:30 pm Pandas vs Lethbridge.

Positions

The University of Alberta is committed to the principle of equity in employment.

In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Support Staff

The limited number of vacancies is a result of the current Support Staff hiring freeze effective 1 January 1990.

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 2 February. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Positions available as of 2 February 1990.

The salary rate for the following position reflects adjustments in accordance with the terms for the implementation of the Pay Equity Program.

Secretary (Term), Grade 5, Chemistry, (\$1,749-\$2,166)

The following positions retain salary rates in accordance with the previous classification system and pay plan.

Administrative Clerk (Communications Coordinator), (Part-time/Term to January 1991), Development Office (Project Leadership), (\$823-\$1,050) (prorated)

Technician I (Trust/Term to 31 January 1991), Foods and Nutrition, (\$1,705-\$2,189)
Technician II/III (Trust), Medicine (Endocrinology) (\$1,934-\$2,488)
Nurse (Research Assistant) (Trust), Cardiology, (\$2,189-\$2,834)

**General Manager,
National Screen Institute - Canada**

The National Screen Institute - Canada will contract a General Manager on a term basis. The NSI-C is a training centre based in Edmonton, and is devoted to the development of Canadian film and TV professionals.

Description: Reporting to the Executive Committee, the Board of Directors and/or the Executive Director of NSI-C, the General Manager will administer the internal operations of the NSI-C; in consultation with the Executive Committee respond to recommendations of the Board of Directors; ensure that projects operate within their budgets; report to and make applications to funding agencies.

Qualifications:

Essential: strong administrative and management experience;

Required: project coordination skills; strong interpersonal abilities; initiative and flexibility;

Desirable: interest in film and television; knowledge of accounting and budgeting; some knowledge of film and television.

Salary: Commensurate with qualifications and experience.

Deadline for applications: 16 February 1990.

Address applications to: Carl Hare, Acting Chair NSI-C Board, The National Screen Institute - Canada, Suite 202, 8540 109 Street, Edmonton, Alberta T6G 1E6. Telephone: 439-8461, FAX: 439-3657.

Equipment available

Revox B710 stereo cassette deck with dual capstan drive, peak reading meter, tape counter/timer, auto repeat, and programmable start/stop. This cassette deck is in brand-new condition. Offers? Call 492-5668.

Advertisements

Accommodations available

Victoria properties - Experienced, knowledgeable realtor with Edmonton references will answer all queries, and send information. No cost or obligation. Call collect (604) 595-3200, Lois Dutton, Re/Max Ports West, Victoria, BC.

Sale - University area, sparkling three bedroom semi, 1,300', newer kitchen, skylight, developed basement, quiet location. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984.

Sale - University area, \$86,500. Updated two bedroom bungalow, possible suite downstairs. New siding, windows, furnace. Convenient Beaupark location. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984.

Rent - Hearthstone townhome, furnished, two bedroom, study, three baths, fireplace, air conditioning. Nonsmokers, no pets. 1 May-1 September. \$900/month. 435-4388.

Rent - Bachelor, one bedroom suite. Clean, quiet, immediately, 482-1456, 430-7770.

Rent - 1 February, west end, immaculate three bedroom bungalow. Semi-furnished, major appliances. Direct bus University. Near schools. Single garage. \$795 plus utilities, \$795 DD. 436-5606.

Rent - Four bedroom executive house, southwest Riverbend or Westbrook. \$2,000/month, 433-5377, 437-6603.

Shared accommodation - Mature, responsible, nonsmokers, male/female. Furnished executive home near Heritage Mall. Six appliances, fireplace. \$450 rent, shared utilities. DD, references required. Donna, 435-0845 messages.

Rent - Perfect family home, quiet crescent, Blue Quill, two storey, 3,000 square feet. One or two year lease, available immediately. Partially furnished. Western Relocation, 434-4629.

Rent - New, lake front, hillside bungalow, Sherwood Park, 2,375 square feet, sunken living room, two way fireplace, dream kitchen, jacuzzi. \$2,375 lease. Western Relocation, 434-4629.

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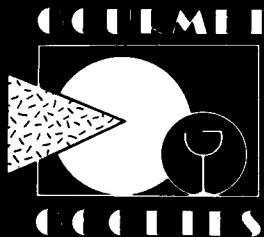
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